

# Milliken® ClearShield™

Crystal-Clear  
UV Protection

ClearShield™ UV Absorber gives the ultimate protection from damaging UV light to PET packaged materials such as food, beverages and consumer products.

This technology creates a new UV protection performance standard, extending the shelf life of packaged materials, protecting brand image and allowing more friendly formulations with natural colorants, flavors, and essences. ClearShield also overcomes the deficiencies of traditional technologies including unwanted color, migration, bloom and plate-out. ClearShield is available as an easy feeding homogenous liquid or in commercially available masterbatches and is compliant for food contact applications.

## Attributes

- Protection from damaging UV light
- Protecting more natural ingredients
- Extended shelf life of packaged contents
- Protecting brand image
- No extraction into formulation
- Resists plate out

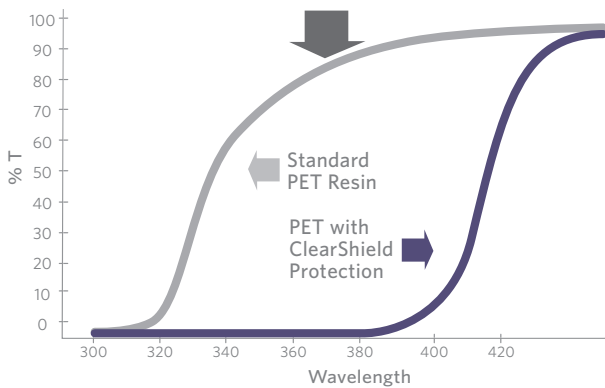


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## The added protection of ClearShield 5% transmission at 390nm.



## Case Studies

### Protecting UV-sensitive colors

This commercial shampoo was exposed to 45 accelerated QUV hours, the ClearShield-protected bottle retained "signature" color, lost in bottle on the left.



For more information on correlation with shelf life, please contact us as shelf life is affected by the formulation, geography and bottle design.

### Extending shelf life Riboflavin (Vitamin B2 5.5mg/l)

The ClearShield-protected bottle on the right was exposed to 19 accelerated QUV hours, and showed that vitamin B2 is 4x better protected in the bottle with ClearShield.



Please contact your Milliken representative for any additional information.

PLEASE NOTE: As each customer's use of our product may be different, information we provide, including without limitation, recommendations, test results, samples, care/labeling/processing instructions or marketing advice, is provided in good faith but without warranty and without accepting any responsibility/liability. Each customer must test and be responsible for its own specific use, further processing, labeling, marketing, etc. All sales are exclusively subject to our standard terms of sale posted at [www.milliken.com/terms](http://www.milliken.com/terms) (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing.

**NORTH AMERICA**  
Spartanburg, SC, USA  
Tel: 800-910-5592  
Fax: 864-503-2430  
[millichem@milliken.com](mailto:millichem@milliken.com)

**EUROPE**  
Gent, Belgium  
Tel: 32-9-265-1100  
Fax: 32-9-265-1195  
[eurochem@milliken.com](mailto:eurochem@milliken.com)

**LATIN AMERICA**  
Sao Paulo, Brazil  
Tel: 55-11-3043-7942  
Fax: 55-11-3043-7096  
[lachem@milliken.com](mailto:lachem@milliken.com)

**LATIN AMERICA**  
Mexico City, Mexico  
Tel: 52-55-3088 3600  
Fax: 52-55-9000 2643  
[lachem@milliken.com](mailto:lachem@milliken.com)

**ASIA**  
Singapore  
Tel: 65-6377-0770  
Fax: 65-6377-0990  
[asiachem@milliken.com](mailto:asiachem@milliken.com)

**ASIA**  
Shanghai  
Tel: 86-21 6145-5555  
Fax: 86-21 6145-5558  
[asiachem@milliken.com](mailto:asiachem@milliken.com)

**ASIA**  
Pune, India  
Tel: 91.20.6730.7501  
Fax: 91.20.6730.7514  
[asiachem@milliken.com](mailto:asiachem@milliken.com)